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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,571	03/01/2004	Philip Corbin III	FLUX 2004-1	9864

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EXAMINER	
LE, DANG D	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/790,571	CORBIN ET AL.	
	Examiner	Art Unit	
	Dang D. Le	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/21/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 15 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 15 and 30, it is not clear what "the electro conductive materials' electrical circuit" is.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Laffey et al. (5,58,279).

Regarding claims 1 and 16, Laffey et al. shows an apparatus for transferring torque magnetically comprising:

- a primary torque driving rotary member (12) and a secondary driven rotary member (22), the primary rotary member axially overlapping said secondary rotary member, the secondary rotary member being surrounded by said primary member, the primary rotary member having permanent magnets (18) mounted on it; the secondary rotary member having electro conductive elements and magnetically permeable materials (or permanent magnets 20 as claimed in claim 16),
- said secondary rotary member axially overlapped by said primary rotating member wherein said primary rotary member's axial position relative to said secondary rotating member can be varied by a suitable means (24), and said primary rotating member being connected to and driven by a torque producing device and said secondary rotating member being connected to a torque utilizing device whereby rotation of the primary rotary member causes rotation of said secondary rotating member by some or all of the magnetic flux lines emanating from said permanent magnets mounted on said primary rotating member cutting through the electro conductive material on said secondary rotary member thereby generating torque and rotation in said secondary rotary member in relation to the percentage of the total area that said secondary rotary member is axially overlapped by said primary rotary member.

It is noted that permanent magnets are electro conductive elements and magnetically permeable materials because they contain a high percentage of iron.

6. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood (2,437,871).

Regarding claims 1 and 16, Wood shows an apparatus for transferring torque magnetically comprising:

- a primary torque driving rotary member (1) and a secondary driven rotary member (3), the primary rotary member axially overlapping said secondary rotary member, the secondary rotary member being surrounded by said primary member, the primary rotary member having permanent magnets (17) mounted on it; the secondary rotary member having electro conductive elements and magnetically permeable materials (or permanent magnets 18 as claimed in claim 16),
- said secondary rotary member axially overlapped by said primary rotating member wherein said primary rotary member's axial position relative to said secondary rotating member can be varied by a suitable means (12), and said primary rotating member being connected to and driven by a torque producing device and said secondary rotating member being connected to a torque utilizing device whereby rotation of the primary rotary member causes rotation of said secondary rotating member by some or all of the magnetic flux lines emanating from said permanent magnets mounted on said primary rotating member cutting through the electro conductive material on said secondary rotary member thereby generating torque and rotation in said secondary rotary member in relation to the percentage of the total area that

said secondary rotary member is axially overlapped by said primary rotary member.

It is noted that Wood teaches it is possible to use only one set of permanent magnets meaning either the primary member or the secondary member can be permanent magnets or electro conductive elements and magnetically permeable materials. See column 2, line 48 to column 3, line 5.

7. Claims 1, 3, 7, 12, 16, 18, 22, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehde (2,807,734)

Regarding claims 1 and 16, Lehde shows an apparatus for transferring torque magnetically comprising:

- a primary torque driving rotary member (12) and a secondary driven rotary member (16), the primary rotary member axially overlapping said secondary rotary member, the secondary rotary member being surrounded by said primary member, the primary rotary member having permanent magnets (14) mounted on it; the secondary rotary member having electro conductive elements and magnetically permeable materials (or permanent magnets 19 as claimed in claim 16),
- said secondary rotary member axially overlapped by said primary rotating member wherein said primary rotary member's axial position relative to said secondary rotating member can be varied by a suitable means (21), and said primary rotating member being connected to and driven by a torque producing device and said secondary rotating member being connected to a

torque utilizing device whereby rotation of the primary rotary member causes rotation of said secondary rotating member by some or all of the magnetic flux lines emanating from said permanent magnets mounted on said primary rotating member cutting through the electro conductive material on said secondary rotary member thereby generating torque and rotation in said secondary rotary member in relation to the percentage of the total area that said secondary rotary member is axially overlapped by said primary rotary member.

It is noted that permanent magnets are electro conductive elements and magnetically permeable materials because they contain a high percentage of iron.

Regarding claims 3, 7, 12, 18, 22, and 27, it is noted that Lehde also shows all of the limitations of the claimed invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2, 10, 17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehde in view of Cramer (5,763,973).

Regarding claims 2, 10, 17, and 24, Lehde shows all of the limitations of the claimed invention except for the use of neodymium boron iron magnet.

Cramer shows the use of neodymium boron iron magnet for the purpose of increasing magnetic flux.

Since Lehde and Cramer are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use neodymium boron iron magnet as taught by Cramer for the purpose discussed above.

11. Claims 4, 6, 8, 19, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehde in view of De Lancey (2,230,717).

Regarding claims 4, 6, 19, and 21, Lehde shows all of the limitations of the claimed invention except for the use laminations.

De Lancey shows the use laminations for the purpose of reducing eddy current.

Since Lehde and De Lancey are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use laminations as taught by De Lancey for the purpose discussed above.

Regarding claims 8 and 23, it is noted that De Lancey also shows the use of automatic device (33).

12. Claims 5, 13, 20, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehde in view of Fields et al. (6,041,571).

Regarding claims 5 and 20, Lehde shows all of the limitations of the claimed invention except for the use of aluminum.

Fields et al. shows the use of aluminum (41) for the purpose of reducing corrosion.

Since Lehde and Fields et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aluminum as taught by Fields et al. for the purpose discussed above.

Regarding claims 13, 14, 28, and 29, it is noted that Fields et al. also shows all of the limitations of the claimed invention.

13. Claims 9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehde in view of O'Brien et al. (5,736,798).

Regarding claims 9 and 26, Lehde shows all of the limitations of the claimed invention except for the use of copper.

O'Brien et al. shows the use of copper (21) for the purpose of reducing vibration.

Since Lehde and O'Brien et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use copper as taught by O'Brien et al. for the purpose discussed above.

14. Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehde in view of Rounds (6,084,322).

Regarding claims 11 and 25, Lehde shows all of the limitations of the claimed invention except for the use of alnico, iron and ceramic materials.

Rounds shows the use of alnico, iron and ceramic materials for the purpose of increasing magnetic flux.

Since Lehde and Rounds are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use alnico, iron and ceramic materials as taught by Rounds for the purpose discussed above.

15. Claims 15 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehde in view of Fields et al. and further in view of Krasnow (3,083,311).

Regarding claims 15 and 30, the machine of Lehde modified by Fields et al. shows all of the limitations of the claimed invention except for the electrically resistive materials inserted into the electrical circuit.

Krasnow shows the use of the electrically resistive materials (14, 20) into the electrical circuit for the purpose of reducing eddy current while retaining strong magnetic flux.

Since Lehde, Fields et al., and Krasnow are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the electrically resistive materials into the electrical circuit as taught by Krasnow for the purpose discussed above.

Information on How to Contact USPTO

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D. Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/18/05

DANG LE
PRIMARY EXAMINER